

CLAIMS

What is claimed is:

- 1 1. A wireless communications network comprising:
2 at least one network cell;
3 a base transceiver station (BTS) in each said network cell;
4 a plurality of Mobile Subscriber (MS) units, said MS units in each said
5 network cell communicating wirelessly with said BTS; and
6 a position location receiver in at least one MS unit, said at least one MS
7 unit being a positioned MS unit selectively providing located reception
8 measurements to said BTS, located reception measurements including a current
9 MS unit location with current signal reception measurements.
- 1 2. A wireless communications network as in claim 1, wherein said at least
2 one cell is a plurality of cells, said at least one positioned MS unit is a plurality of
3 positioned MS units providing current location signal reception measurements to
4 a local said BTS at a selected time.
- 1 3. A wireless communications network as in claim 2, wherein said local
2 BTS selects said selected time.
- 1 4. A wireless communications network as in claim 1, wherein said position
2 location receiver is a Global Positioning System (GPS) receiver.
- 1 5. A wireless communications network as in claim 1, further comprising a
2 reception level database predicting reception levels at locations within each said
3 network cell, said network updating said reception level database responsive to
4 said located reception measurements.
- 1 6. A wireless communications network as in claim 1, wherein said BTS
2 provides location specific information to said positioned MS unit.

1 7. A wireless communications network as in claim 6, said location specific
2 information indicating local commercial activities.

1 8. A wireless communications network as in claim 6, said location specific
2 information indicates local hazards.

1 9. A wireless communications network as in claim 6, said location specific
2 information being provided as short message service (SMS) messages.

1 10. A wireless communications network as in claim 1, said wireless
2 communications network is a Global System for Mobile Communication (GSM)
3 network.

1 11. A wireless communications network comprising:
2 a plurality of network cells distributed over a wireless communications
3 network coverage area;
4 a base transceiver station (BTS) serving each of said plurality of network
5 cells;
6 a plurality of Mobile Subscriber (MS) units in each of said plurality of
7 network cells;
8 a positioned MS unit in ones of said plurality of network cells, said
9 positioned MS unit including a position location receiver locating the global
10 position of said positioned MS unit; and
11 each said positioned MS unit providing located reception measurements
12 to a local said BTS, located reception measurements including a MS unit current
13 location with current signal reception measurements.

1 12. A wireless communications network as in claim 11, further comprising a
2 reception level database predicting reception levels at locations within said
3 wireless communications network coverage area, said network updating said
4 reception level database responsive to said located reception measurements.
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1 13. A wireless communications network as in claim 11, wherein said plurality
2 of MS units comprise a Personal Digital Assistant (PDA) with wireless
3 connectivity, a cellular phone, a notebook computer, a tablet computer and a text
4 messaging device.

1 14. A wireless communications network as in claim 11, wherein said local
2 BTS in ones of said plurality of network cells selectively provide location
3 specific information to selected positioned MS units.

1 15. A wireless communications network as in claim 14, wherein said location
2 specific information indicates local commercial activities.

1 16. A wireless communications network as in claim 14, wherein said location
2 specific information indicates local hazards.

1 17. A wireless communications network as in claim 14, wherein said location
2 specific information being provided as short message service (SMS) messages.

1 18. A wireless communications network as in claim 11, wherein said wireless
2 communications network is a Global System for Mobile Communication (GSM)
3 network and at least one said positioned MS unit includes a Global Positioning
4 System (GPS) receiver, said GPS receiver being said position location receiver.

1 19. A method of managing a wireless communications network, said method
2 comprising the steps of:
3 a) measuring signal reception level at a Mobile Subscriber (MS) unit;
4 b) locating the position of said MS unit;
5 c) providing measured said reception level and said located position
6 to a base transceiver station (BTS); and
7 d) returning to measuring step (a) at a selected time.
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- 1 20. A method of managing a wireless communications network as in claim
2 19, wherein said selected time in step (d) is selected by said BTS.
- 1 21. A method of managing a wireless communications network as in claim
2 19, wherein said selected time in step (d) is automatically selected.
- 1 22. A method of managing a wireless communications network as in claim
2 19, wherein before step (d) said method further comprises the step of:
3 c1) updating predicted reception levels in a reception level database
4 responsive to a located said position and said signal reception measurements from
5 said MS unit.
- 1 23. A method of managing a wireless communications network as in claim
2 19, wherein before step (d) said method further comprises the step of:
3 c1) providing location specific information from said BTS to said MS
4 unit.
- 1 24. A method of managing a wireless communications network as in claim
2 23, wherein said location specific information indicates commercial activities
3 local to said MS unit.
- 1 25. A method of managing a wireless communications network as in claim
2 19, wherein said location specific information indicates local hazards.
- 1 26. A method of managing a wireless communications network as in claim
2 19, wherein said location specific information is provided as short message
3 service (SMS) messages.